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1. A contact structure for an integrated circuit comprising:
a lower bulk insulator layer situated above a semiconductor substrate;
a conductor layer situated above the lower bulk insulator layer;
a sleeve insulator layer in contact with the conductor layer; and
a conductor structure extending from the sleeve insulator layer to terminate
at a contact on said semiconductor substrate, said conductor structure being
electrically insulated from the conductor layer by the sleeve insulator layer.

2. The contact structure as defined in Claim 1, wherein a dielectric layer is
situated above the lower bulk insulator layer; and wherein the conductor layer is situated
above the dielectric layer.

3. The contact structure as defined in Claim 2, wherein said dielectric layer
extends to make contact with the sleeve insulator layer.

4. The contact structure as defined in Claim 1, wherein an electrically insulating
layer is situated upon the conductor layer.

5. The contact structure as defined in Claim 4, wherein the electrically insulating
layer upon the conductor layer is formed conformably upon the conductor layer.

6. The contact structure as defined in Claim 4, wherein the electrically insulating
layer upon the conductor layer is an upper bulk insulator layer having sidewall, where in the
sidewall of the upper bulk insulator layer is in contact with the sleeve insulator layer.

7. The contact structure as defined in Claim 1, wherein the sleeve insulator layer extends from the conductor layer to terminate within the lower bulk insulator layer above the semiconductor substrate, said sleeve insulator layer extending through and being in contact with each of the lower bulk insulator layer and the conductor layer.

8. The contact structure as defined in Claim 1, wherein the conductor structure is at least partially circumscribed by and is in contact with said sleeve insulator layer.

9. The contact structure as defined in Claim 1, wherein each of the lower bulk insulator layer and the conductor layer has a sidewall in contact with the sleeve insulator layer.

10. The contact structure as defined in Claim 1, wherein said conductor layer extends from said sleeve insulator layer to make contact with a dielectric layer.

11. The contact structure as defined in Claim 1, wherein said conductor structure has an end on said semiconductor substrate that is composed of a refractory metal silicide material.

12. The contact structure as defined in Claim 1, wherein said sleeve insulator layer is composed of a material selective from the group consisting of Ta_2O_5 and Si_3N_4 .

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13. A contact structure for an integrated circuit comprising:
a lower bulk insulator layer situated above a semiconductor substrate;
a conductor layer situated above the lower bulk insulator layer;
an upper bulk insulator layer upon the conductor layer, said upper bulk insulator layer having sidewall;
a sleeve insulator layer in contact with the conductor layer, wherein the sidewall of the upper bulk insulator layer is in contact with the sleeve insulator layer; and
a conductive plug extending from the sleeve insulator layer to terminate at a contact on said semiconductor substrate, said conductive plug being electrically insulated from the conductor layer by the sleeve insulator layer.

14. The contact structure as defined in Claim 13, wherein:
a dielectric layer is situated above the lower bulk insulator layer;
the conductor layer is situated upon the dielectric layer;
the dielectric layer extends to make contact with the sleeve insulator layer; and
the conductive plug is at least partially circumscribed by and is in contact with said sleeve insulator layer.

1 15. A contact structure for an integrated circuit comprising:
2 a lower bulk insulator layer situated above a semiconductor substrate;
3 a dielectric layer situated above the lower bulk insulator layer;
4 a conductor layer situated above the lower bulk insulator layer and above the
5 dielectric layer;
6 an electrically insulating layer situated upon the conductor layer;
7 a sleeve insulator layer in contact with the conductor layer and extending
8 from the conductor layer to terminate within the lower bulk insulator layer above the
9 semiconductor substrate, said sleeve insulator layer extending through and being in
10 contact with each of the lower bulk insulator layer and the conductor layer, wherein
11 each of the lower bulk insulator layer and the conductor layer has a sidewall in
12 contact with the sleeve insulator layer; and
13 a conductive plug extending from the sleeve insulator layer to terminate at a
14 contact on said semiconductor substrate, said conductive plug being electrically
15 insulated from the conductor layer by the sleeve insulator layer.

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17 16. The contact structure as defined in Claim 15, wherein the electrically
18 insulating layer is formed conformably upon the conductor layer.
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20 17. The contact structure as defined in Claim 15, wherein the electrically
21 insulating layer upon the conductor layer is an upper bulk insulator layer having sidewall,
22 where in the sidewall of the upper bulk insulator layer is in contact with the sleeve insulator
23 layer.
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1 18. The contact structure as defined in Claim 15, wherein:

2 said conductor layer is said cell plate to a capacitor and extends from said
3 sleeve insulator layer to make contact with a capacitor dielectric layer of the
4 capacitor, the dielectric layer being situated upon a storage node layer of the
5 capacitor, the storage node layer being situated upon the semiconductor substrate;

6 said capacitor dielectric layer extends to make contact with the sleeve
7 insulator layer;

8 said contact on said semiconductor substrate is an active area for a transistor
9 having a gate in electrical communication with said conductive plug; and

10 said transistor is in electrical communication with the storage node layer of
11 the capacitor.
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19. A contact structure for an integrated circuit comprising:
a semiconductor substrate having an active region therein;
a capacitor storage node in contact in electrical communication with the active region;
a capacitor dielectric upon the capacitor storage node;
a capacitor cell plate upon the capacitor dielectric;
an electrically conductive plug in contact with the active region and the storage node;
a first dielectric layer insulating the capacitor cell plate from the electrically conductive plug, the electrically conductive plug projecting from the active region above the first dielectric layer and the capacitor cell plate.

20. The contact structure as defined in Claim 19, further comprising:
a first transistor situated upon the semiconductor substrate; and
a second transistor situated upon the semiconductor substrate, wherein:
a first portion of the electrically conductive plug is situated between the first and second transistors and between the semiconductor substrate and the first dielectric layer;
the capacitor storage node is in contact with an insulated spacer on each of the first and second transistors.

21. The contact structure as defined in Claim 20, wherein the first portion of the electrically conductive plug is enclosed within the first dielectric layer.

1 22. A contact structure for an integrated circuit comprising:
2 a lower bulk insulator layer situated above a semiconductor substrate;
3 a dielectric layer above the lower bulk insulator layer;
4 a conductor layer situated above the dielectric layer;
5 an electrically insulating layer formed conformably upon the conductor layer
6 and having a sidewall that is in contact with the sleeve insulator layer;
7 a sleeve insulator layer, composed of a material selective from the group
8 consisting of Ta_2O_5 and Si_3N_4 , and extending:
9 through and being in contact with each of the lower bulk insulator
10 layer and the conductor layer;
11 to contact the dielectric layer; and
12 from the conductor layer to terminate within the lower bulk insulator
13 layer above the semiconductor substrate; and
14 a conductor structure terminating at a refractory metal silicide material
15 contact on said semiconductor substrate and being electrically insulated from the
16 conductor layer by the sleeve insulator layer.
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18 23. The contact structure as defined in Claim 22, wherein the conductor structure
19 is at least partially circumscribed by and is in contact with said sleeve insulator layer.
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21 24. The contact structure as defined in Claim 22, wherein each of the lower bulk
22 insulator layer and the conductor layer has a sidewall in contact with the sleeve insulator
23 layer.
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25. The contact structure as defined in Claim 22, wherein said conductor layer extends from said sleeve insulator layer to make contact with a material that does not conduct electricity.